# ENABLING PEOPLE WITH LOW VISION TO DRIVE LEGALLY AND SAFELY IN THE STATE OF MARYLAND



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### Appreciation

Nancy Snowden

Retired case manager, Driver Wellness Division

Paula Caltrider, Cynthia Friedman

Current case managers

Jonathan Lyons, M.D.

Instrumental in establishing program

#### The impact of losing your driver's license



### Driving

- Even limited driving preserves one's independence
- Study of drivers with macular degeneration in 1990s
  - Driving simulator test: Very poor performance
  - Driving records showed few accidents
  - Drivers self-limit their driving

## What are the visual requirements for safe driving?

- Not really known
  - Each state has own requirements
- Visual acuity
- Visual field: 16 states with no requirement
   (Other visual factors: contrast, glare)
- Processing, cognition, reaction time, etc

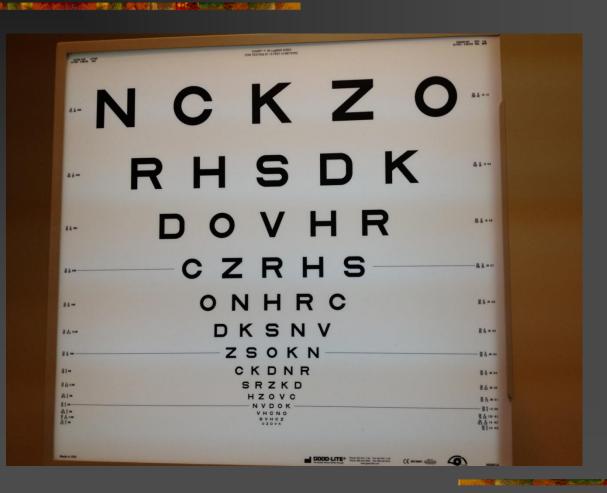
### Measuring visual acuity

20/200

20/100

20/50

20/20



### Macular degeneration

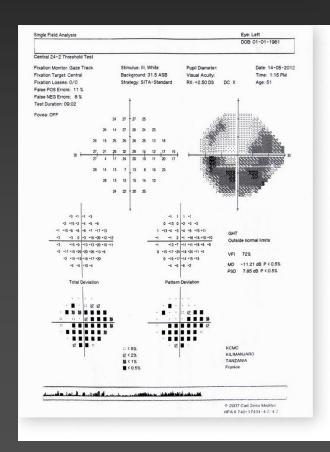


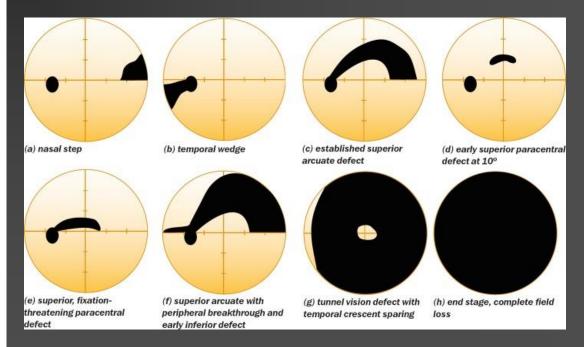


Also Diabetic retinopathy

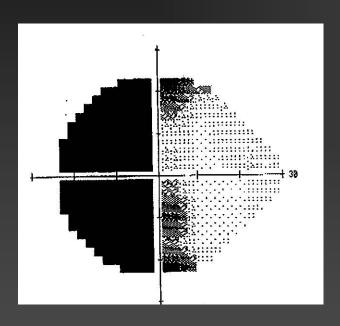
### Measuring visual field

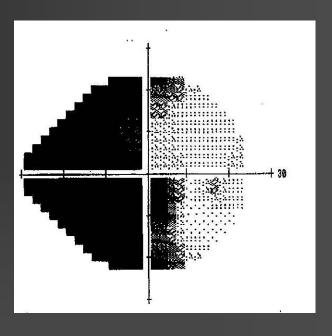
#### Glaucoma





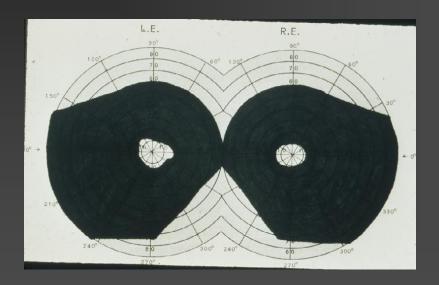
#### Stroke





#### Visual field defects

Retinitis Pigmentosa



### Other aspects of vision

- Contrast sensitivity
- Glare sensitivity



### Maryland driving requirements

- Unrestricted license:
  - 20/40 or better
  - Full visual field (140 degrees)

### Maryland driving requirements

- Restricted license
  - **20/41-20/70**
  - Continuous visual field at least 110 degrees in diameter, 35 degrees to each side
  - Requires outside mirrors on each side

### Maryland driving requirements

- Modified vision driving program qualifications
  - Visual acuity 20/71 20/100
  - Continuous visual field at least 110 degrees in diameter, 35 degrees to each side
  - Bioptic lenses can be used, but have to meet vision requirements with regular glasses
- Part of Maryland law

### **Process for Applicants**

- Low vision package sent to client consisting of:
  - CONSENT FOR RELEASE OF CONFIDENTIAL INFORMATION
  - MODIFIED VISION PROGRAM FORM for eye doctor
  - PHYSICIAN'S REPORT FORM (for individuals with medical conditions other than vision-related)
  - HEALTH QUESTIONNAIRE
- \*Reviewed by MAB ophthalmologist

## Favorable Approval Experienced Drivers

- Letter is sent to the client
- Clinical and behind-the-wheel evaluation by a driver rehabilitation specialist (often an OT)
- \*Reviewed by MAB ophthalmologist

## Favorable Approval Experienced Drivers

 20 hours customized driver training is completed at MVA licensed driving school or certified driver education school.

- \*Reviewed by MAB ophthalmologist
- MVA driving test
  - Regular course and road test
  - Modified if geographically restricted license sought

### Favorable Approval Novice Drivers

- Letter is sent to the client
- Clinical evaluation by a driver rehabilitation specialist (often an OT)
- \*Reviewed by MAB ophthalmologist

### Favorable Approval Novice Drivers

- 10 hours of basic driver's education, pass written test
- Return to the rehabilitation facility for the behind-the-wheel portion.
- If favorable, a learner's permit is issued restricted to being accompanied by a <u>certified driver education instructor</u>).
- Complete 30 hours of classroom instruction
- 20 hours customized driver training is completed by <u>certified driver education</u> <u>instructor</u>

### Favorable Approval Novice Drivers

- \*Reviewed by MAB ophthalmologist
- Corrected learner's permit, 60 hours of logbook training with licensed driver (parent, mentor, spouse, guardian, friend)
- Driving test scheduled
  - Regular examiner, unless geographically restricted

## Favorable Approval Experienced and Novice Drivers

If client passes driving test, he/she obtains driver's license that reflect these mandatory restrictions:

- G, Daylight Driving Only
- J, Vehicles 10,000 lbs or Less
- May also have geographic restrictions for example 5 mile radius, no highways

## Favorable Approval Experienced and Novice Drivers

- Annual reports required from vision specialist for review by MAB ophthalmologist.
- Clients must continue to meet vision requirements

#### Unfavorable Recommendation

If MAB ophthalmologist is unable to make a favorable recommendation, client is offered an interview with the MAB ophthalmologist.

## Removal of G Daylight Driving Only Restriction

- Client must be licensed for at least one year through low vision program.
- Contrast sensitivity, glare screening testing conducted by ophthalmologist.

## Removal of G Daylight Driving Only Restriction

- Nighttime driver training completed at MVA licensed or certified driving school (no required minimum number of hours).
- Nighttime driving test successfully completed.
- Corrected license issued without G, Daylight Driving Only Restriction.

### Crash Rate in all Groups

- Unrestricted Driving Population (Better than 20/40):
  - 15.6% Crash or moving violation
- Restricted Vision Population (20/40-20/70):
  - 15.2% Crash or moving violation
- Low Vision Population (126 drivers) (20/70-20/100):
  - 13.8% Crash or Moving Violation

### Modified visual field program

- (Many people continue driving after a stroke and visual field cut)
- Program to try to enable select group of drivers to continue driving safely
- Similar process to modified vision program
- Not part of law currently; allowed by discretion of Medical Advisory Board

## Issues regarding blind areas in visual field

- Unawareness of field defect and need to compensate
- Neglect
- Over compensating
- Use of prisms

### You can help

- Inform people about program
- Call if you have questions

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Thanks for your interest